REMARKS

The Office Action dated June 14, 2007, has been received and carefully noted. The following remarks are submitted as a full and complete response thereto.

Claims 1-19, 21-40, and 42-52 are currently pending in the application, of which claims 1, 19, 32, 40, 51, and 52 are independent claims. Claims 1-19, 21-40, and 42-52 are respectfully submitted for consideration.

An interview was conducted between the Examiner and Applicants' representative on August 22, 2007. Applicants thank the Examiner for the courtesies extended Applicants' representative during the interview. During the interview, Applicants' representative essentially discussed the issues set forth in the response below. The Examiner seemed to indicate that the comments in the rejection under 35 U.S.C. 101, would be sufficient to overcome the rejection. Likewise, the Examiner seemed to indicate that the incorrect rejection would be withdrawn in view of the further explanation provided. Thus, Applicants believe that the Examiner's concerns were addressed in the interview. Unfortunately, the Examiner **still** has not provided Applicants' representative with an interview summary, recording the Examiner's perceptions of the interview.

Claims 1-19, 21-40, and 42-52 were rejected under 35 U.S.C. 101 as allegedly drawn to unpatentable subject matter. Applicants respectfully traverse this rejection.

Claim 1 recites "communicating header information" as well as "using the determined type of classification to control the communication and compression of the

information." Communicating information and controlling the communication of information are not "an abstract idea" and are "tangible, concrete, and useful." Furthermore, the recitation of "header" information as well as of "compression" further demonstrate that the claim is not merely to an abstract idea, but produces tangible, concrete, and useful result. Header compression is useful in many applications, such as, for example, switched communication networks. Accordingly, claim 1 clearly recites subject matter that is patentable under 35 U.S.C. 101.

Claim 19 has its own scope, but similarly recites "forming a compressed list of items" and "transmitting said compressed list as compressed header." These features are similarly not merely abstract ideas and are concrete, tangible, and useful. Accordingly, the rejection of claim 19 should also be withdrawn.

Independent claims 32, 40, 51, and 52 each have their own scope, but each are directed to a device. Claims to devices are clearly patentable subject matter, since they are something tangible, concrete, and useful and not merely an abstract idea.

Additionally, both claims 1 and 19 recite, as an intended use, "for header compression," in the preambles of the claims. This intended use clearly establishes that the methods have a use that is concrete, tangible, and useful, since header compression meets all of those requirements. For this additional reason, it is respectfully requested that the rejection be withdrawn.

The Office Action, at page 2, item 4, indicated that "Actually, there is no recited limitation of how to control the communicated [sic] and compression information set

forth in the claim. Therefore, the claim does not produce a concrete and useful result to form the basis [sic] statutory subject matter under USC 35 [sic] 101." The Office Action's rationale in support of the rejection is clearly erroneous.

The Office Action appears to have misunderstood the legal standard of utility. The legal requirement is that the claimed invention be useful (35 U.S.C. 101), novel (35 U.S.C. 102), and non-obvious (35 U.S.C. 103). There is a legal presumption that any claim is useful, novel, and non-obvious, and in contradicting patentability, the burden lies on the U.S.P.T.O. to establish unpatentability. "Utility" or "usefulness" does not have to be recited in a claim any more than "non-obviousness" has to be recited. This is abundantly clear from the fact that it is permissible to have claims to articles of manufacture and compositions of matter. Such claims do not recite a utility (the use of the invention is not recited in the claims), but yet they claim a useful invention because the claim an article or manufacture or composition of matter whose use is apparent from the specification.

With respect to claims 1 and 19, however, (to which the Office Action's comments are directed) the claims go further and recite an intended concrete and tangible use for the claimed method, namely header compression.

Furthermore, even if it were necessary to recite a concrete, tangible, and useful result (as asserted by the Office Action), the claims recite "using the determined type of classification to control the communication and compression of the information" (claim 1) and "transmitting said compressed list as a compressed header" (claim 19).

- 4 -

Accordingly, both claims 1 and 19 do clearly recite a concrete, tangible, and useful result. Whether or not additional detail is provided in the claims as to how to control the communication and compression of the information does not (in any way) negatively affect the usefulness of the recited invention. Thus, the assertion that claim does not "produce a concrete and useful result" is not supported by the Office Action's assertion. Thus, the rejection of claims 1 and 19 should be withdrawn.

With regard to claim 19, the Office Action additionally asserted that "the claim does not produce a concrete and useful result based on the classification type to form the basis [sic] statutory subject matter under 35 USC 101." This assertion is incorrect. Claim 19 recites "based upon the classifying ... forming a compressed list" and "transmitting said compressed list." Accordingly, the Office Action's alleged basis for rejecting the claim is incorrect, and the rejection of claim 19 should be withdrawn.

Claims 2-18 and 21-31 respectively depend from and further limit claims 1 and 20. Accordingly, claims 2-18 and 21-31 also recite subject matter that is useful and patentable.

The Office Action did not provide any reasoning in support of the rejection of claims 32-40 and 42-52. Furthermore, as noted above, claims 32-40 and 42-52 are to a device, which is clearly patentable subject matter. Accordingly, it is respectfully requested that the rejection of claims 32-40 and 42-52 be withdrawn as clearly failing to constitute a *prima facie* rejection.

Claims 1-19, 21-40, and 42-52 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the invention. Applicants respectfully traverse this rejection.

The Office Action, at page 3, item 6, state that "While a method for header compression could reasonably be considered a tangible result, the body of claims 1, 19, 32, 40 and 51 do not appear to actually support the preamble by including a step or steps, which accomplish tat act." This is not a valid basis for rejecting the claim, because it does not state any indefiniteness in the claim. Even if the Office Action's assertions were taken as true (which they are not), the rationale in no way suggests that the claim language contains any kind of ambiguity or indefiniteness that renders the metes and bounds of the invention unclear. Accordingly, the rationale provided does not support the rejection, and it is respectfully requested that the rejection be withdrawn.

Additionally, Applicants respectfully note that the rationale is clearly mistaken, particularly with respect to claims 32-40 and 42-52, which do not recite a method, but rather recite a device. Furthermore, claim 1 recites "using the determined type of classification to control ... the compression of the information" and specifies that the information is "header information" and claim 19 recites "transmitting said compressed list as a compressed header." Accordingly, the claims do recite steps that accomplish the act of header compression. Thus, the rejection is contrary to the evidence of record, and should be withdrawn.

The Office Action also asserted that "Additionally, it [sic] not clear as to what communication and compression of information the classification type would control." However, from claim 1, it is actually clear that the information to be communicated and compressed is the "header information," as specifically recited in claim 1, "communicating header information." Thus, this stated basis for the rejection cannot support the rejection, and it is respectfully requested that the rejection be withdrawn.

The Office Action further asserted that "it is also unclear how the item list would compare with a preference [sic] item and base [sic] on which criteria such comparison would accomplish." It is difficult to decipher the meaning of this basis for rejection. As best understood, the Office Action's complaint is regarding a lack of detail as to how the comparison is made between the current item list and the reference item list. Such a lack of detail, however, while it may render the claim broad, does not render the claim indefinite. Accordingly, such a ground cannot support the rejection, and it is respectfully requested that the rejection be withdrawn.

The Office Action also asserted that "Claim 1, 19, 32, and 51 recites [sic] the limitation "the communication and compression of information". There is insufficient antecedent basis for this limitation in the claim." This assertion is not true. Claims 19, 32, and 51 do not recite any such limitation using the words provided in quotation marks by the Office Action.

Claim 1, as presently pending, recites "the communication and compression of the information." Antecedent basis for the recitation "the communication" may be found in

the previous recitation "communicating header information" at line 2 of the claim. The change in form from participle ("communicating") to verbal ("communication") should not be deemed to render the antecedent reference indefinite or otherwise render the claim insolubly ambiguous, such that the claim would be improper under 35 U.S.C. 112, second paragraph. It is, therefore, respectfully requested that the rejection of claim 1 be withdrawn.

Claims 1-3, 14-15, 19, 21-22, 32-34, 40, 42-43, and 51-52 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,864,860 of Holmes in view of U.S. Patent No. 5,481,712 of Silver et al. ("Silver"). The Office Action took the position that Holmes discloses all of the features of independent claims 1, 19, 32, 40, and 51-52, except "determine[ing] the type of classification based on the comparing items" and "using the classification type to control the communication." The Office Action cited Silver to remedy these deficiencies of Holmes. Applicants respectfully traverse this rejection.

Claim 1, upon which claims 2-18 depend, is directed to a method for header compression. The method includes communicating header information. The method also includes comparing a current item list containing a plurality of current items with a reference item list containing a plurality of reference items. The method further includes determining a type of classification based on the comparing of the items of the lists. The method additionally includes using the determined type of classification to control the communication and compression of the information.

Claim 19, upon which claims 21-31 depend, is directed to a method for header compression. The method includes classifying at least one item of a current list containing a plurality of items by comparing the current list with a reference list containing a plurality of items. The method also includes based upon the classifying of the at least one item of the current list, forming a compressed list including the at least one item. The method further includes transmitting the compressed list as a compressed header. The method additionally includes determining a type of classification based on the comparing.

Claim 32, upon which claims 33-39 depend, is directed to a device including a processor configured to compare a current item list containing a plurality of current items with a reference item list containing a plurality of reference items. The processor is also configured to determine a type of classification based on the comparing of the items of the lists. The processor is further configured to communicate compressed information based upon the determined type of classification.

Claim 40, upon which claims 42-50 depend, is directed to a device including a processor configured to classify at least one item of a current list containing a plurality of items by comparing the current list with a reference list containing a plurality of items. The processor is also configured, based upon the classifying of the at least one item of the current list, to form a compressed list including the at least one item. The device further includes a transmitter configured to transmit the compressed list. The processor is configured to determine a type of classification based on the comparing.

Claim 51 is directed to a device including comparing means for comparing a current item list containing a plurality of current items with a reference item list containing a plurality of reference items. The device also includes determining means for determining a type of classification based on a comparing of the items of the lists. The device further includes communicating means for communicating the compressed information based upon a determined type of classification.

Claim 52 is directed to a device including classifying means for classifying at least one item of a current list containing a plurality of items. The device also includes comparing means for comparing the current list with a reference list containing a plurality of items. The device further includes forming means for, based upon the classifying of the at least one item of the current list, forming a compressed list including the at least one item. The device additionally includes means for transmitting the compressed list. The classifying means is configured to classify based on a comparing of the current list with the reference list.

Applicants respectfully submit that the combination of Holmes and Silver fails to disclose or suggest all of the elements of any of the presently pending claims.

Holmes relates to compression of structured data. Specifically, as explained in columns 3-4, Holmes relates to data compression in the area of delimited text databases. For example, each row (or record) of data will contain a set of fields delimited from each other by a character. Holmes discloses comparing a field of a current record with a corresponding field of a previous record. Holmes suggests creating a compressed form of

the current record based on the current row. The compressed form of the current record is the same as the current record except that, if the contents of a field of the current record are identical to that of the corresponding field in the previous record, a single character (such as a ".") is used in place of the contents. When all of the fields have been compared and (if appropriate) compressed, the compressed form of the current record is passed to the client.

As the Office Action recognized, Holmes fails to disclose or suggest all of the elements of any of the presently pending claims. The Office Action supplied Silver to remedy the deficiencies of Holmes.

Silver generally relates to a method and apparatus for interactively generating a computer program for machine vision analysis of an object. The Office Action asserted that, at column 50, lines 30-44, and column 61, lines 7-18, Silver discusses "a list of items this is a mutable ordered collection of elements, wherein the list of items can have elements added or removed from the front or back; the list has a notion of current item and insertion and removal can be performed from there." The Office Action continues by asserting that "Such lists disclosed by Silver can be traversed in forward and backward order."

The Office Action stated that such disclosure is similar to the disclosure at page 21, lines 1-9, of the present specification. The Office Action, therefore, concluded that Silver discloses "determining the type of classification based on the comparing items"

and "using the classification type to control the communication," thereby remedying the deficiencies of Holmes.

There is no discussion in the cited passages of Silver of any determination of any type of classification based on any comparison of items. Silver does mention, at column 50, lines 34-41, that a comparison is made to determine whether a list place is actually a place on that particular list which is under consideration or not. That appears to be the closest discussion to anything approaching what is claimed, namely "determining a type of classification based on said comparing of the items of the lists," as recited, for example, in claim 1.

Furthermore, there is no discussion of "using the determined type of classification to control the communication and compression of the information" (as recited in claim 1) in the cited passages of Silver. The cited passages of Silver do not even appear to mention the communication of information, much less control of such communication using a determined type of classification. Accordingly, Applicants respectfully submit that Silver fails to remedy either of the admitted deficiencies of Holmes.

Moreover, there is not proper legally sufficient motivation to combine the references. The Office Action took the position that it would have been obvious to combine the references to modify Holmes to include the alleged teachings of Silver "for the purpose of ensuring the validity of the data item; thereby enabling a reduction in the amount of data to be transferred." The Office Action did not cite any evidence to support this alleged motivation to combine.

The alleged motivation to combine is puzzling, because Silver is not particularly related to ensuring the validity of data items or to enabling reduction in data to be transferred. Silver does mention that a determination as to validity is made at column 50, lines 38-40, but this is subsequent to the comparison that is described at column 50, lines 34-38. Furthermore, the reason that Silver provides for employing the procedures described at column 50, lines 30-44, is as a safeguard to enhance the "modicum of mechanism to deal with the possibly obscure problem of requesting a list place on a list other than the one you got the place from" as stated at column 50, lines 23-29.

The Office Action's position that one of ordinary skill in the art would have extracted two rather minor points from Silver's lengthy disclosure, whose primary subject is machine vision analysis of an object, based on the alleged motivation to combine is not fully reasonable on its face. Accordingly, the proposed combination is (on its face) motivated not by the references, but only by the present application, which is improper hindsight reconstruction. Thus, it is respectfully requested that the rejection be withdrawn for this additional reason.

This distinction was previously raised in the submission filed with the Request for Continued Examination (RCE) on April 20, 2007. The Office Action, however, though it substantially repeats the same rejection, does not reflect any indication that the Examiner read or considered the arguments presented. MPEP 707.07(f) sets forth the Examiner's obligation to answer all material traversed. Specifically MPEP 707.07(f) states that "the examiner should, if he or she repeats the rejection, take note of the applicant's argument

and answer the substance of it." It is essential that the Office Action address each of the arguments presented, so that meaningful appellate review is possible. Nevertheless, the Office Action did not address the previously presented arguments. Accordingly, if the rejection is again maintained, it is respectfully requested that a response to the arguments be provided in a new Non-Final Office Action.

Claims 4-13, 16-18, 23-29, 34-39, and 44-50 were rejected under 35 U.S.C. 103(a) as being unpatentable over Holmes in view of Silver and further in view of U.S. Patent No. 6,535,925 of Svanbro et al. ("Svanbro"). The Office Action took the position that certain further limitations of the rejected claims were not disclosed or suggested by the combination of Holmes and Silver. The Office Action, therefore, cited Svanbro to remedy the deficiencies of Holmes and Silver. Applicants respectfully traverse this rejection.

Claims 4-13, 16-18, 23-29, 34-39, and 44-50 depend from claims 1, 19, 32, and 40 respectively, and recite additional limitations. The impossibility of Holmes and Silver disclosing the combination of recitations in the claims is explained above. Svanbro aggravates the deficiencies of Holmes and Silver, because it does not provide teaching, motivation, or suggestion to make the combination of Holmes and Silver, or to make the further combination including Svanbro's own teachings with those of Holmes and Silver.

Svanbro generally relates to packet header compression using division remainders. Specifically, in columns 5-8, Svanbro describes a header compression (Figure 3), time stamp compression (Figure 4), time stamp decompression (Figures 5 and 7), and header

- 14 -

decompression (Figure 6). Svanbro recommends using convention header compression techniques augmented by separately compressing the time stamp. With regard to the time stamp compression, Svanbro teaches that advance knowledge obtained by empirical observation can be used to reduce the number of bits needed to encode a relatively predictable time stamp in an application such as a real-time speech service.

There is no motivation to combine Svanbro with Silver for essentially the same reasons there is no motivation to combine Holmes with Silver. Svanbro and Silver are aimed at compressing radically different kinds of information. Thus, one of ordinary skill interested in machine vision analysis of an object might look to Silver, but would not look to Svanbro. Similarly, one of ordinary skill interested in compressing header data might look to Svanbro, but would not look to Silver. Therefore, the combination of Svanbro and Silver is an improper combination, and, as explained above, the result of improper hindsight reconstruction. Accordingly, it is respectfully requested that this rejection be withdrawn.
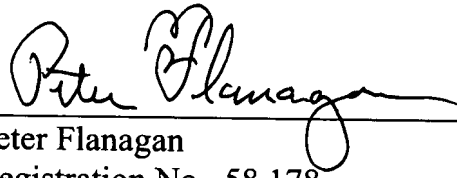
For the reasons set forth above, it is respectfully submitted that each of claims 1-19, 21-40, and 42-52 recites subject matter that is useful, definite, and neither disclosed nor suggested in the cited art. It is, therefore, respectfully requested that all of claims 1-19, 21-40, and 42-52 be allowed, and that this application be passed to issuance.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by

telephone, the applicants' undersigned representative at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

Peter Flanagan
Registration No. 58,178

Customer No. 32294
SQUIRE, SANDERS & DEMPSEY LLP
14TH Floor
8000 Towers Crescent Drive
Tysons Corner, Virginia 22182-2700
Telephone: 703-720-7800; Fax: 703-720-7802

PCF:jkm

Enclosures: Petition for Extension of Time
Check No. 17514